	Application No.	Applicant(s)
Notice of Allowability	10/549,242	OTSUKI ET AL.
	Examiner	Art Unit
	KAMRAN AFSHAR	2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to <u>12/23/08, 1/22/09, 1/30/09</u>.

2. ☒ The allowed claim(s) is/are <u>3,5-17,19,22,24-36 and 38-42</u>.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

      a) ☐ All   b) ☐ Some*   c) ☐ None of the:

          1. ☐ Certified copies of the priority documents have been received.

          2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

          3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date <u>1/22/2009</u> .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

/Kamran Afshar/
Primary Examiner, Art Unit 2617

DETAILED ACTION

EXAMINER'S AMENDMENT

1.   An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview

with **Mr. Mr. Timothy D. MacIntyre, Reg. No. 42,824** on 1/22/2009.

The application has been amended as follows:

In The Claims:

1 – 2. (cancelled)

3.   (currently amended)   ~~The wireless packet communication method~~

~~according to claim 2,~~ A wireless packet communication method for

simultaneously transmitting from a transmit-side STA a plurality of wireless

packets by using multiple wireless channels determined to be idle by both of

physical carrier sense and virtual carrier sense when multiple wireless channels

are provided between the transmit-side STA and one or more receive-side STAs,

the physical carrier sense determining a wireless channel to be busy or idle from

received power, the virtual carrier sense determining a wireless channel to be

busy during a set transmission inhibition time, the method characterized by comprising

setting, by said transmit-side STA, time (Tmax + Ts) as transmission inhibition time to a paired wireless channel other than a wireless channel which requires longest transmission time Tmax among wireless channels used for simultaneous transmission, the transmission inhibition time used in the virtual carrier sense, the time (Tmax + Ts) obtained by adding predetermined time Ts to the longest transmission time Tmax; and ~~characterized by further comprising~~

setting, by said transmit-side STA, the time (Tmax + Ts) to the paired wireless channel as a new transmission inhibition time when an existing set transmission inhibition time for said virtual carrier sense is smaller than the time (Tmax + Ts).

4.   (cancelled)

5.   (currently amended)   ~~The wireless packet communication method according to claim 4,~~ A wireless packet communication method for simultaneously transmitting from a transmit-side STA a plurality of wireless packets by using multiple wireless channels determined to be idle by both of physical carrier sense and virtual carrier sense when multiple wireless channels are provided between the transmit-side STA and one or more receive-side STAs, the physical carrier sense determining a wireless channel to be busy or idle from received power, the virtual carrier sense determining a wireless channel to be

busy during a set transmission inhibition time, the method characterized by
comprising:

predetermining, by said transmit-side STA, combinations of wireless
channels among the multiple wireless channels, the combinations of wireless
channels having an effect on each other due to a leakage of transmitted power;

setting, by said transmit-side STA, time (Ti + Ts) as transmission inhibition
time to a paired wireless channel other than a wireless channel which requires
longest transmission time Ti among respective combinations of wireless
channels, the transmission inhibition time being used in the virtual carrier sense,
the time (Ti + Ts) obtained by adding a predetermined time Ts to the longest
transmission time Ti; and ~~characterized by further comprising~~

setting, by said transmit-side STA, the time (Ti + Ts) to the paired wireless
channel as a new transmission inhibition time when an existing set transmission
inhibition time for said virtual carrier sense is smaller than the time (Ti + Ts).

6.   (currently amended)   The wireless packet communication method
according to any one of claims 3 or 5 ~~2 to 5~~, characterized by further comprising

detecting, by said transmit-side STA, received power due to a leakage
from a transmitting wireless channel in the paired wireless channel, and setting
the transmission inhibition time to a paired wireless channel which has received
power greater than or equal to a predetermined threshold value.

7.   (currently amended)   The wireless packet communication method
according to any one of claims 3 or 5 ~~2 to 5~~, characterized by further comprising

detecting, by said transmit-side STA, an error in a received signal in the paired wireless channel, and setting the transmission inhibition time to a paired wireless channel having the error detected.

8.   (currently amended)   The wireless packet communication method according to any one of claims 3 or 5 2 to 5, characterized by further comprising:

when receiving a wireless packet over the paired wireless channel at said transmit-side STA,

performing, by said transmit-side STA, an error detection to the received wireless packet:

when a wireless channel having normally received a wireless packet directed to an own STA has the set transmission inhibition time, canceling the transmission inhibition time by said transmit-side STA; and

when occupied time is set in a header of the received wireless packet, setting, by said transmit-side STA, a new transmission inhibition time in accordance with the occupied time.

9.   (currently amended)   The wireless packet communication method according to any one of claims 3 or 5 2 to 5, characterized by further comprising

when there is a wireless channel having the set transmission inhibition time at the time of transmission data generation, transmitting, by said transmit-side STA, a wireless packet using said wireless channel determined to be idle after waiting until the transmission inhibition time elapses.

10.   (currently amended)   The wireless packet communication method according to any one of claims 3 or 5 ~~2 to 5~~, characterized by further comprising:

when there are wireless channels having set transmission time at the time of transmission data generation,

transmitting, by said transmit-side STA, a wireless packet using said wireless channel determined to be idle after waiting until the transmission inhibition time elapses when the longest transmission inhibition time is smaller than a predetermined threshold value; or

transmitting, by said transmit-side STA, a wireless packet using said wireless channel determined to be idle without waiting until the transmission inhibition time elapses when the longest transmission inhibition time is greater than or equal to the predetermined threshold value.

11.   (currently amended)   The wireless packet communication method according to any one of claims 3 or 5 ~~2 to 5~~, characterized by further comprising

when there is a wireless channel having the set transmission inhibition time at the time of transmission data generation, transmitting, by said transmit-side STA, a wireless packet using said wireless channel determined to be idle with a predetermined probability without waiting until the transmission inhibition time elapses.

12.   (currently amended)   The wireless packet communication method according to any one of claims 3 or 5 ~~2 to 5~~, characterized by further comprising

when transmission data is generated, transmitting, by said transmit-side STA, a wireless packet using said wireless channel determined to be idle after waiting until all wireless channels are determined to be idle by said physical carrier sense and said virtual carrier sense.

13.   (currently amended)   The wireless packet communication method according to any one of claims 3 or 5 2 to 5, characterized by further comprising:

when transmission data is generated,

transmitting, by said transmit-side STA, wireless packets using said wireless channels determined to be idle after waiting until all wireless channels are determined to be idle by said physical carrier sense and said virtual carrier sense; or

transmitting, by said transmit-side STA, wireless packets using said wireless channels determined to be idle without waiting until the transmission inhibition time elapses when the longest transmission inhibition time of the set transmission inhibition time of wireless channels is greater than or equal to a predetermined threshold value.

14.   (previously presented)   The wireless packet communication method according to claim 10, characterized by further comprising:

when there are wireless channels having the set transmission inhibition time,

transmitting, by said transmit-side STA, a wireless packet using said wireless channel determined to be idle after waiting until the transmission

inhibition time elapses when there is a wireless channel having set transmission inhibition time smaller than a predetermined threshold value; or

transmitting, by said transmit-side STA, a wireless packet using said wireless channel determined to be idle without waiting until the transmission inhibition time elapses when no wireless channel has set transmission inhibition time smaller than the predetermined threshold value.

15.   (original) The wireless packet communication method according to claim 14, characterized by further comprising

said transmit-side STA's returning to determine whether there is a wireless channel having the set transmission inhibition time or whether all wireless channels are idle, after waiting until the transmission inhibition time elapses when there are wireless channels having the set transmission inhibition time and there is a wireless channel having set transmission inhibition time smaller than a predetermined threshold value.

16.   (currently amended)   The wireless packet communication method according to any one of claims 3 or 5 2 to 5, characterized by further comprising

when transmission data is generated, transmitting, by said transmit-side STA, a wireless packet using said wireless channel determined to be idle after waiting or without waiting with a predetermined probability until all wireless channels are determined to be idle by said physical carrier sense and said virtual carrier sense.

17.   (currently amended)   The wireless packet communication method according to any one of claims 3 or 5 2 to 5, characterized by further comprising:

when receiving a wireless packet having set transmission inhibition time, setting, by said receive-side STA, the transmission inhibition time to a wireless channel having received the wireless packet, and when normally receiving a wireless packet directed to an own STA, transmitting, by said receive-side STA, an ACK packet to said transmit-side STA, the ACK packet including the transmission inhibition time set in the paired wireless channel; and

when receiving a corresponding ACK packet within a predetermined period of time after having transmitted said wireless packet, updating, by said transmit-side STA, transmission inhibition time set for the paired wireless channel to transmission inhibition time of the paired wireless channel included in the ACK packet.

18.   (cancelled)

19.   (currently amended)   ~~The wireless packet communication method according to claim 18,~~ A wireless packet communication method for assigning, by a transmit-side STA, a plurality of wireless packets, respectively, to a plurality of sub-channels determined to be idle by both physical carrier sense and virtual carrier sense for simultaneous transmission, when sub-channels to be multiplexed into one wireless channel are provided between a transmit-side STA and one or more receive-side STAs, the physical carrier sense in which said transmit-side STA determines each sub-channel to be busy or idle from received

power, the virtual carrier sense in which said transmit-side STA determines each

sub-channel to be busy during set transmission inhibition time, the method

characterized by comprising

setting, by said transmit-side STA, time (Tmax + Ts) as transmission

inhibition time to sub-channels other than a sub-channel which requires longest

transmission/reception time Tmax among sub-channels used for simultaneous

transmission, the time (Tmax + Ts) being obtained by adding a predetermined

time Ts to the longest transmission/reception time Tmax, the transmission

inhibition time being used in the virtual carrier sense; and ~~characterized by~~

~~further comprising~~

setting the time (Tmax + Ts) as a new transmission inhibition time by said

transmit-side STA when an existing set transmission inhibition time for said

virtual carrier sense is smaller than the time (Tmax + Ts).

20 – 21.   (cancelled)

22.   (currently amended)   ~~The wireless packet communication apparatus~~

~~according to claim 21,~~ A wireless packet communication apparatus provided with

multiple wireless channels between a transmit-side STA and one or more

receive-side STAs for simultaneously transmitting from the transmit-side STA a

plurality of wireless packets by using multiple wireless channels determined to be

idle by both of a physical carrier sense unit and a virtual carrier sense unit, the

physical carrier sense unit determining a wireless channel to be busy or idle from

received power, the virtual carrier sense unit determining a wireless channel to

be busy during set transmission inhibition time, the apparatus characterized by comprising

a virtual carrier sense unit of said transmit-side STA setting time (Tmax + Ts) as the transmission inhibition time to a paired wireless channel other than a wireless channel which requires longest transmission time Tmax among wireless channels used for simultaneous transmission, the time (Tmax + Ts) obtained by adding the predetermined time Ts to the longest transmission Tmax, ~~characterized in that~~

when an existing set transmission inhibition time is smaller than the time (Tmax + Ts), the virtual carrier sense unit of said transmit-side STA sets the time (Tmax + Ts) to the paired wireless channel as a new transmission inhibition time.

23.   (cancelled)

24.   (currently amended)   ~~The wireless packet communication apparatus according to claim 23,~~ A wireless packet communication apparatus provided with multiple wireless channels between a transmit-side STA and one or more receive-side STAs for simultaneously transmitting from the transmit-side STA a plurality of wireless packets by using multiple wireless channels determined to be idle by both of a physical carrier sense unit and a virtual carrier sense unit, the physical carrier sense unit determining a wireless channel to be busy or idle from received power, the virtual carrier sense unit determining a wireless channel to be busy during set transmission inhibition time, the apparatus characterized by comprising

a virtual carrier sense unit of said transmit-side STA predetermining combinations of wireless channels which have an effect of leakage of transmitted power on each other among multiple wireless channels, and setting time (Ti + Ts) as the transmission inhibition time to a paired wireless channel other than a wireless channel which requires longest transmission time Ti among respective combinations of wireless channels, the time (Ti + Ts) obtained by adding a predetermined time Ts to the longest transmission time Ti ,~~characterized in that~~

when an existing set transmission inhibition time is smaller than the time (Ti + Ts), the virtual carrier sense unit of said transmit-side STA sets the time (Ti + Ts) to the paired wireless channel as a new transmission inhibition time.

25.   (currently amended)   The wireless packet communication apparatus according to any one of claims 22 or 24 ~~21 to 24~~, characterized in that

said transmit-side STA includes a unit which detects received power in the paired wireless channel caused by leakage from a transmitting wireless channel, and said virtual carrier sense unit sets the transmission inhibition time to a paired wireless channel having the received power greater than or equal to a predetermined threshold value.

26.   (previously presented)   The wireless packet communication apparatus according to any one of claims 22 or 24 ~~21 to 24~~, characterized in that

said transmit-side STA includes a unit which detects an error in a received signal in the paired wireless channel, and said virtual carrier sense unit sets the

transmission inhibition time to a paired wireless channel having an error detected.

27.   (currently amended)   The wireless packet communication apparatus according to any one of claims 22 or 24 ~~21 to 24,~~ characterized in that:

said transmit-side STA includes a unit which detects, when receiving a wireless packet over the paired wireless channel, an error in the received wireless packet;

when a wireless channel having normally received a wireless packet directed to an own STA has the set transmission inhibition time, said virtual carrier sense unit cancels the transmission inhibition time; and

when occupied time is set in a header of the received wireless packet, said virtual carrier sense unit sets a new transmission inhibition time in accordance with the occupied time.

28.   (currently amended)   The wireless packet communication apparatus according to any one of claims 22 or 24 ~~21 to 24,~~ characterized in that

when transmission data is generated, the virtual carrier sense unit of said transmit-side STA transmits a wireless packet using said wireless channel determined to be idle after waiting until the transmission inhibition time elapses when there is a wireless channel having the set transmission inhibition time.

29.   (currently amended)   The wireless packet communication apparatus according to any one of claims 22 or 24 ~~21 to 24,~~ characterized in that:

when transmission data is generated,

when the longest transmission inhibition time of the set transmission inhibition time of wireless channels is smaller than a predetermined threshold value, the virtual carrier sense unit of said transmit-side STA transmits a wireless packet using said wireless channel determined to be idle after waiting until the transmission inhibition time elapses; or

when the longest transmission inhibition time is greater than or equal to the predetermined threshold value, said virtual carrier sense unit transmits a wireless packet using said wireless channel determined to be idle without waiting until the transmission inhibition time elapses.

30. (previously presented) The wireless packet communication apparatus according to any one of claims 22 or 24 ~~21 to 24~~, characterized in that

when there is a wireless channel having the set transmission inhibition time at the time of transmission data generation, the virtual carrier sense unit of said transmit-side STA transmits a wireless packet using said wireless channel determined to be idle, without waiting with a predetermined probability until the transmission inhibition time elapses.

31. (currently amended) The wireless packet communication apparatus according to any one of claims 22 or 24 ~~21 to 24~~, characterized in that

when transmission data is generated, the physical carrier sense unit and the virtual carrier sense unit of said transmit-side STA transmit a wireless packet using said wireless channel determined to be idle after waiting until all the wireless channels are determined to be idle.

32.   (currently amended)   The wireless packet communication apparatus according to any one of claims 22 or 24 ~~21 to 24~~, characterized in that:

when transmission data is generated,

the physical carrier sense unit and the virtual carrier sense unit of said transmit-side STA transmit a wireless packet using said wireless channel determined to be idle after waiting until all the wireless channels are determined to be idle; or

when the longest transmission inhibition time of the set transmission inhibition time of the wireless channels is greater than or equal to a predetermined threshold value, the physical carrier sense unit and the virtual carrier sense unit transmit a wireless packet using said wireless channel determined to be idle without waiting until the transmission inhibition time elapses.

33.   (previously presented)   The wireless packet communication apparatus according to claim 29, characterized in that:

when there are wireless channels having the set transmission inhibition time,

when there is a wireless channel having set transmission inhibition time smaller than a predetermined threshold value, the virtual carrier sense unit of said transmit-side STA transmits a wireless packet using said wireless channel determined to be idle after waiting until the transmission inhibition time elapses; or

when no wireless channel has set transmission inhibition time smaller than the predetermined threshold value, the virtual carrier sense unit of said transmit-side STA transmits a wireless packet using said wireless channel determined to be idle without waiting until the transmission inhibition time elapses.

34.   (original)   The wireless packet communication apparatus according to claim 33, characterized in that

the virtual carrier sense unit of said transmit-side STA returns to determine whether there is a wireless channel having the set transmission inhibition time or whether all the wireless channels are idle, after waiting until the transmission inhibition time elapses when there are wireless channels having the set transmission inhibition time and there is a wireless channel having set transmission inhibition time smaller than a predetermined threshold value.

35.   (currently amended)   The wireless packet communication apparatus according to any one of claims 22 or 24 21 to 24, characterized in that

when transmission data is generated, the physical carrier sense unit and the virtual carrier sense unit of said transmit-side STA transmit a wireless packet using said wireless channel determined to be idle after waiting or without waiting with a predetermined probability until all the wireless channels are determined to be idle.

36.   (currently amended)   The wireless packet communication apparatus according to any one of claims 22 or 24 21 to 24, characterized in that:

said receive-side STA includes a unit which sets transmission inhibition time to a wireless channel receiving a wireless packet when the received wireless packet has the set transmission inhibition time, and which transmits an ACK packet to said transmit-side STA when a wireless packet directed to the own STA has been normally received, the ACK packet including the transmission inhibition time set in the paired wireless channel; and

said transmit-side STA includes a unit which updates the transmission inhibition time set for the paired wireless channel to transmission inhibition time of a paired wireless channel included in a corresponding ACK packet when receiving the ACK packet within a predetermined period of time after having transmitted said wireless packet.

37.   (cancelled)

38.   (currently amended)   ~~The wireless packet communication apparatus according to claim 37,~~ A wireless packet communication apparatus comprising: one transceiver which multiplexes a plurality of sub-channels into one wireless channel for transmission and reception; a physical carrier sense unit which determines whether each of said sub-carriers is busy or idle from received power; and a virtual carrier sense unit which determines each of said sub-carriers to be busy during set transmission inhibition time, wherein said transceiver assigns, for simultaneous transmission and reception, a plurality of wireless packets respectively to a plurality of sub-channels determined to be idle by both

said physical carrier sense unit and said virtual carrier sense unit, the apparatus characterized in that

said virtual carrier sense unit sets time (Tmax + Ts) as transmission inhibition time to sub-channels other than a sub-channel which requires longest transmission time Tmax among sub-channels used for simultaneous transmission and reception, the time (Tmax + Ts) obtained by adding a predetermined time Ts to the longest transmission time Tmax ~~characterized in that~~

when an existing set transmission inhibition time is smaller than the time (Tmax + Ts), said virtual carrier sense unit sets the time (Tmax + Ts) to said sub-channel as a new transmission inhibition time.

39. (previously presented) The wireless packet communication method according to claim 38, characterized by further comprising:

when there are wireless channels having the set transmission inhibition time,

transmitting, by said transmit-side STA, a wireless packet using said wireless channel determined to be idle after waiting until the transmission inhibition time elapses when there is a wireless channel having set transmission inhibition time smaller than a predetermined threshold value; or

transmitting, by said transmit-side STA, a wireless packet using said wireless channel determined to be idle without waiting until the transmission

inhibition time elapses when no wireless channel has set transmission inhibition time smaller than the predetermined threshold value.

40.   (previously presented)   The wireless packet communication method according to claim 39, characterized by further comprising

said transmit-side STA's returning to determine whether there is a wireless channel having the set transmission inhibition time or whether all wireless channels are idle, after waiting until the transmission inhibition time elapses when there are wireless channels having the set transmission inhibition time and there is a wireless channel having set transmission inhibition time smaller than a predetermined threshold value.

41.   (previously presented)   The wireless packet communication apparatus according to claim 32, characterized in that:

when there are wireless channels having the set transmission inhibition time,

when there is a wireless channel having set transmission inhibition time smaller than a predetermined threshold value, the virtual carrier sense unit of said transmit-side STA transmits a wireless packet using said wireless channel determined to be idle after waiting until the transmission inhibition time elapses; or

when no wireless channel has set transmission inhibition time smaller than the predetermined threshold value, the virtual carrier sense unit of said transmit-

side STA transmits a wireless packet using said wireless channel determined to be idle without waiting until the transmission inhibition time elapses.

42.   (previously presented)   The wireless packet communication apparatus according to claim 41, characterized in that

the virtual carrier sense unit of said transmit-side STA returns to determine whether there is a wireless channel having the set transmission inhibition time or whether all the wireless channels are idle, after waiting until the transmission inhibition time elapses when there are wireless channels having the set transmission inhibition time and there is a wireless channel having set transmission inhibition time smaller than a predetermined threshold value.

*** Allowable Subject Matter ***

2.   In view of the Amendment as discussed above, Claims 3, 5-17, 19, 22, 24-36, and 38-42 are allowed.

The following is an examiner's statement of reasons for allowance: 3, 5-17, 19, 22, 24-36, and 38-42.

Claims 3, 5-17, 19, 22, 24-36 and 41-42, are allowed for the reasons as set forth in the previous action mailed 10/01/2008.

With respect to claim 38, the prior art of record fails to disclose singly or in combination to render obvious that when an existing set transmission inhibition time is smaller than the time (Tmax + Ts), the virtual carrier sense unit sets the time (Tmax + Ts) to said sub-channel as a new transmission inhibition time.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

>   a) Aratake (U.S. 5, 159, 702 A).

Any inquiry concerning this communication or earlier communication from the examiner should be

directed to Kamran Afshar whose telephone number is (571) 272-7796. The examiner can be reached on

Monday-Friday.

If attempts to reach the examiner by the telephone are unsuccessful, the examiner's supervisor,

Eng, George can be reached @ (571) 272-7495. The fax number for the organization where this

application or proceeding is assigned is **571-273-8300** for all communications.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained from

either Private PAIR or Public PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC)

at 866-217-9197 (toll-free).

/Kamran Afshar/

Primary Examiner, Art Unit 2617